Midterm - 1A   Name:_____

Microeconomics - EC 2106
Fall Semester 1999
Instructor: Robert McNab   Score:_____

INSTRUCTIONS: Please answer all questions to the best of your ability within the allotted time of 120 minutes. You are required to show your work to receive credit. For multiple choice and true/false questions, please circle the appropriate answer. 100 possible points.

1.   Which of the following statements is most accurate (4 points)?

   a.   All else remaining equal, if supply increases and demand decreases, price will decline and quantity will increase.
   b.   All else remaining equal, if supply decreases and demand increases, price will increase and quantity will decrease.
   c.   All else remaining equal, if supply increases and demand increases, price will be ambiguous and quantity will decrease.
   d.   All else remaining equal, if supply decreases and demand decreases, price will be ambiguous and quantity will decrease.

2.   T   F   Assume that the price of gold is $325 an ounce in London and $318 an ounce in New York and that transaction costs are equal to 5% of the price per ounce. Is the following statement true or false: There exists sufficient differentiation in price between the two markets for arbitrage would occur (4 Points).

3.   Over the past ten years, we have observed that the market price for computers has decreased while at the same time the market quantity for computers has increased. This indicates that (4 Points):

   a.   Market Supply has decreased by more than Market Demand has increased
   b.   Market Demand has decreased by more than Market Supply has increased
   c.   Market Demand has increased by more than Market Supply has increased
   d.   Market Supply has increased by more than Market Demand has increased

4.   Microsoft Vice-President Steven Balmer recently stated that "the prices of technology stocks, including Microsoft are overvalued." Before the statement, shares of Microsoft were trading at 98, two days later, Microsoft's share price had fallen to 91. What impact would this have on the price of the MSFT95L futures contract in the IEM (4 Points)?

   a.   The price of the MSFT95L futures contract would be unaffected.
   b.   The price of the MSFT95L futures contract would increase.
   c.   The price of the MSFT95L futures contract would decrease.
   d.   There is no MSFT95L futures contract in the IEM.

5. A concave production possibilities frontier 'bows outward' from the origin due to (4 points):

    a. Increasing marginal returns to production
    b. Constant returns to production
    c. Decreasing marginal returns to production
    d. Increasing absolute returns to production

6. T   F   Price elasticity of demand measures the responsiveness of quantity demanded to changes in income (4 points).

7. Which of the following statements is most accurate:

    a. If the cross-price elasticity between two goods is negative, the two goods are substitutes.
    b. If the income elasticity of a good is positive, the good must be an inferior good.
    c. If price elasticity is less than one, then demand is elastic.
    d. If two goods are complements, then the cross-price elasticity must be negative.

8. Indicate whether the following statements represent a normative (N) or positive (P) statement (2 points apiece):

    P   N   A flat tax on income would result in lower taxes for higher income families.

    P   N   A flat tax on income would be unfair since higher income families would pay less than under the current system of proportional taxation.

9. T   F   The principle of comparative advantage states that a country should only engage in international trade if it completely dominates the terms of trade, that is, it can produce all goods at relatively lower costs than its trading partners (4 Points)

10. Assume that in May 1999 that the average price of Pentium III 450 MHz computer chips was $425, with a resulting quantity demanded of 1.5 million chips. In June 1999, the average price of Pentium III 450 MHz computer chips fell to $400, with a resulting quantity demanded of 2.0 million chips. What was the price elasticity of demand for Pentium III 450 MHz computer chips during May and June of 1999?

    a. 0.21
    b. 0.75
    c. 4.71
    d. 5.28
    e. None of the Above

PART II

11. You have recently been hired as a staff economist for the Congressional Research Office. You are asked to evaluate a proposal currently being considered before Congress. The 'Small Farmer Protection Act' would establish a minimum price for beef at $2/lb which is $1 below the current market price of $3/lb. If passed, assuming all else remaining equal, what impact would this proposal have on the market for beef? Make sure to <u>explain and illustrate</u> your answer completely (15 points).

12. In the space provided below, illustrate a concave production possibilities frontier where the maximum production of computers is 1.5 million units and the maximum production of cars is 2.0 million units. Furthermore, illustrate an obtainable but inefficient combination of computers and cars (Point A); an efficient and obtainable combination of computers and cars (Point B), and an unobtainable combination of computers and cars (Point C). Finally, illustrate what would occur if an improvement in the production process for computers meant that maximum production increased to 3.0 million units (15 points)

13. In August 1999, the average price of gasoline in Atlanta was $1.00 a gallon with 35 million gallons demanded by consumers. In September 1999, the average price of gasoline in Atlanta rose to $1.15 with 34 million gallons demanded by consumers. What was the price elasticity of demand for gasoline in Atlanta during the months of August and September (7.5 points)?

14. In 1998, the average income of the American household was $26,500. In 1999, the average income is expected to be $27,000. In 1998, the quantity demanded of televisions was estimated to be 12 million units, which is expected to rise by 5% in 1999. What is the income elasticity of demand for televisions during the 1998-1999 period (7.5 points)?

Answer Either Question 15 or Question 16

15. Explain the concept of comparative advantage and provide an example of the potential gains from international trade (15 points).

16. In your own words, explain the Law of Diminishing Marginal Utility and how it relates to the Law of Demand (15 Points).

Answer Key

1. D
2. F
3. D
4. B
5. C
6. F
7. D
8. Positive, Normative
9. F
10. C

11. Since the price floor is set below the existing market price for beef, the price floor would have <u>no effect</u> on the market price or quantity, assuming, of course, that all else remains equal. If events occur such that the market price falls below $2, then a surplus would occur.

12.
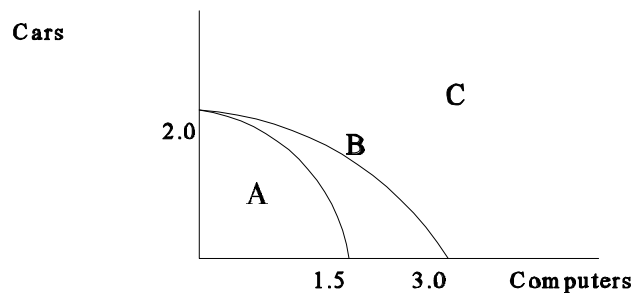
13. Ed =| ((34-35)/(34+35)/2) / ((1.15-1)/(1.15+1)/2) | = 0.20773

14. Ey = ((12.6 - 12)/(12.6+12)/2) / ((27000-26500)/(27000+26500)/2) = 2.6097

15. The concept of comparative advantage states that, all else remaining equal, if relative production costs differ between countries, then the countries should specialize in the production of the relatively cheapest good (goods) and trade those grades for relatively more expensive goods. See class notes for numerical example of gains from trade.

16. The Law of Diminishing Marginal Utility states that, all else remaining equal, past some point, the marginal utility from successive units of consumption declines. The Law of Demand states that, all else remaining equal, that as the price of a good declines, individuals will consume more of that good. The Law of Diminishing Marginal Utility illustrates that, past some point, the value of successive units of a good decline to the consumer, and thus they are willing to pay less for more quantity, thus the motivation behind the Law of Demand, that is, the inverse relationship between price and quantity. (Various answers ok)